

PATENT COOPERATION TREATY


PCT

REC'D 08 FEB 2006

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 630/753/PWO	FOR FURTHER ACTION		See Form PCT/PEA/416
International application No. PCT/GB2004/004982	International filing date (day/month/year) 26.11.2004	Priority date (day/month/year) 29.11.2003	
International Patent Classification (IPC) or national classification and IPC G03B21/56, G03B21/58, G03B21/60			
Applicant LASTOLITE LIMITED et al.			
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 6 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> sent to the applicant and to the International Bureau a total of 2 sheets, as follows:</p> <p><input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>			
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the opinion</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>			
Date of submission of the demand 28.09.2005		Date of completion of this report 07.02.2006	
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465		Authorized Officer Rückerl, R Telephone No. +49 89 2399-6999	



**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
PCT/GB2004/004982

Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
 - ☐ publication of the international application (under Rule 12.4)
 - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

Description, Pages

1-7 as originally filed

Claims, Numbers

1-10 received on 28.09.2005 with letter of 28.09.2005

Drawings, Sheets

1/4-4/4 as originally filed

- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing
3. ☒ The amendments have resulted in the cancellation of:
- ☐ the description, pages
 - ☒ the claims, Nos. 11,12
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing (*specify*):
 - ☐ any table(s) related to sequence listing (*specify*):
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing (*specify*):
 - ☐ any table(s) related to sequence listing (*specify*):

* If item 4 applies, some or all of these sheets may be marked "superseded."

**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
PCT/GB2004/004982

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-10
	No: Claims	
Inventive step (IS)	Yes: Claims	
	No: Claims	1-10
Industrial applicability (IA)	Yes: Claims	1-10
	No: Claims	

2. Citations and explanations (Rule 70.7):

see separate sheet

**INTERNATIONAL PRELIMINARY
REPORT ON PATENTABILITY
(SEPARATE SHEET)**

International application No.

PCT/GB2004/004982

Re Item V

**Reasoned statement with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement**

Reference is made to the following documents:

- D1: GB 679 778 A (HERBERT AUGUSTUS STARKE) 24 September 1952**
- D2: US 5 140 460 A (FUKUHARA ET AL) 18 August 1992**
- D3: US 3 037 424 A (CAPETTA ALBERT) 5 June 1962**
- D4: US 5 361 163 A (MATSUDA ET AL) 1 November 1994**
- D5: US 4 323 301 A (SPECTOR ET AL) 6 April 1982**

- D6: US 5 258 870 A (TAI) 2 November 1993**
- D7: GB 805 216 A (JAYLE ET AL) 3 December 1958**
- D8: JP 2003 066535 A (FUJI KNITTING KK) 5 March 2003**
- D9: US 1 568 023 A (MCMANUS ET AL) 29 December 1925**

The documents **D6-D9** were not cited in the international search report. Copies of the documents are appended hereto.

- 1.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of **claim 1** does not involve an inventive step in the sense of Article 33(3) PCT.

The document **D5** is regarded as being the closest prior art to the subject-matter of **claim 1**, and discloses (the references in parentheses applying to this document, see figures 1 and 6):

a collapsible projection screen comprising

- i) a projection layer formed of a flexible sheet of fabric (10), and
- ii) a flexible hoop for supporting the projection layer in tension during use (11),
wherein

- iii) the tensioned projection layer has a front projection surface adapted to have an image projected thereon.

The subject-matter of **claim 1** therefore differs from this known projection screen in that

- i) the flexible sheet of fabric is made of a knitted fabric, and
- ii) a rear surface corresponding to the projection layer is overlaid with a backing layer that absorbs light transmitted through the projection surface of the projection layer.

These two distinguishing features appear to be a juxtaposition of features, combined in a way which does not lead to an unexpected technical effect. Therefore, the question of inventive step is discussed separately for each of the features.

with regard to feature i):

- 1.2 A skilled person is well aware of the generally known alternative materials commonly used for a flexible screen, namely those of plastic films and knitted or woven fabrics, see documents **D1-D9**. The particular choice of one of these three alternatives is done by the skilled person in accordance with circumstances, without having to resort to inventive activity.
- 1.3 In particular, the problem to be solved by the present invention may be regarded as providing a projection screen with good acoustic permeability in order to enable the user to place a loudspeaker behind the screen.
The solution proposed in **claim 1** of the present application cannot be considered as involving an inventive step (Article 33(3) PCT), because the skilled person faced with the above problem would use the teaching of document **D2** or **D6** by exchanging the screen material of **D5** with the knitted fabric disclosed in **D2** (column 2, lines 35-45) and in **D6** (column 1, lines 47-67).
- 1.4 Moreover, the subject-matter of **claim 1** is an obvious combination of **D3**, which discloses a screen material supported by a flexible hoop (see reference sign 17 in column 3, lines 4-8, designating a hoop with adjustable length and width, which

therefore clearly has to be "flexible"), combined with a screen made of knitted fabric as disclosed in **D2** and **D6** for reasons analogous to those set out in above point 1.3.

with regard to feature ii):

- 1.5 A light absorbing backing layer is obvious, because it is already suggested in documents **D1** (page 3, left column, lines 15-25), **D2** (column 4, lines 3-6), **D3** (column 2, lines 26-34), **D4** (column 2, lines 17-25) and **D6** (column 2, lines 43-44).
2. Dependent **claims 2-10** do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of inventive step, see the documents and the corresponding passages cited in the search report.

630/753/PWO

8

Claims

1. A collapsible projection screen comprising a projection layer formed of a flexible sheet of a knitted fabric, and a flexible hoop for supporting the projection layer in tension, during use, wherein at least part of the tensioned projection layer has a front projection surface adapted to have an image projected thereon and a corresponding rear surface that is overlaid with a backing layer that absorbs light transmitted through the projection surface of the projection layer.
2. A collapsible projection screen as claimed in Claim 1, wherein the tensioned projection layer is free of creases.
3. A collapsible projection screen as claimed in Claim 2, wherein the projection layer is stretched slightly when tensioned.
4. A collapsible projection screen as claimed in any preceding claim, wherein the backing layer overlies the entire rear surface of the projection layer.
5. A collapsible projection screen as claimed in any preceding claim, wherein the backing layer is of black colouration.
6. A collapsible projection screen as claimed in any preceding claim, wherein the backing layer is formed of a sheet of fabric.
7. A collapsible projection screen as claimed in any preceding claim, wherein the facing surfaces of the projection layer and the backing layer are not bonded together but are held in close abutment.
8. A collapsible projection screen as claimed in any preceding claim, wherein the projection layer and backing layer are provided with a peripheral tube within which the flexible hoop is accommodated, the hoop serving to

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630/753/P/WO

9

tension and slightly stretch the fabric of the projection layer and the backing layer.

9. A collapsible projection screen as claimed in any preceding claim,
5 wherein the projection screen includes means by which the panel can be suspended during use.

10. A collapsible projection screen as claimed in any preceding claim,
wherein the projection screen is self-supporting in an upright position.

AMENDED SHEET

28/09/2005

Leaf 1 of 111 P. 008